Thesis Title

Development of Database System for Building Valuation:

1-6 Storey Commercial Buildings, Mini Factories, and Rice Mills

Thesis Credits

12

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Abstract

This thesis dealt with the study of a database system development for building valuation of 1-6 storey commercial buildings, mini factories and rice mills. The construction costs of each type of building samples were estimated and systematically analysed and then collected for the database system. Altogether 1346 building samples were used in the study which comprised of 75 samples from the previous study, 103 new samples collected from various sites and 1168 samples from our own design. There were 7 categories of work, namely foundation, structure, exterior wall, roof, interior decoration, plumbing and sanitary, and electrical system. Each catagory of work was estimated and analysed to determine the cost per square meter classified in three levels as low, medium, and high. The characteristics of each category of work were then defined according to the range of each cost level.

The results showed that the valuation by using the new database gave more accurate results than the previous database in all seven works and the errors in costs estimated for the sample buildings were between -10.75 to 7.95 percent as compared to -9.25 to 35 percent for the previous study.

Keywords:

Database System / Building Valuation / Type of Building / Category of Work /

Cost Level